Serial No. 09/932,553
Reply to Office Action of March 17, 2005

Amendments to the Drawings:

The attached sheet(s) of drawings includes changes to Figs. 1 and 2. The two sheets which include Figs. 1-2 replaces the original sheets including Fig. 1-2. In Figure 1, previously omitted descriptive text labels are provided as requested by Examiner. Additionally, Figs. 1 and 2 were submitted as informal drawings, and the attached replacement sheets are provided to present the formal drawings for this application. Due to the simplicity of the changes, annotated sheets showing changes are not presented with this Amendment.

WDO - 60188/0343 - 177420 v2

7

Serial No. 09/932,553
Reply to Office Action of March 17, 2005

REMARKS/ARGUMENTS

Prior to this Amendment, claims 1-14 were pending.

Claim 1 is amended to clarify further that the adapter system Includes components that allow it to test connectivity from an I/O board to a switch in the adapter system and when connectivity is not found to enable data transfer through a secondary I/O board and secondary switch.

Independent claim 15 is added to protect an adapter system similar to that of claim 1 but to further stress that network information is transferred to the secondary NIC including IP addresses of other devices connected to the network, netmasks, and/or broadcasts are transferred to the secondary NIC to enable the active transfer of data. No new matter is added with support found in original claims 1, 5 and 6 and the specification at page 10, lines 10-19.

After entry of the Amendment, claims 1-15 remain for consideration by the Examiner.

Objections to the Drawings

In the March 17, 2005 Office Action, Figure 1 was objected to due to missing text labels for boxes numbered 10, 12, and 14. These labels have been added with support found in Applicant's specification at page 6, lines 11-15. Figure 2 is also replaced to provide a formal version of this figure.

Claim Objections

In the Office Action claims 1, 2, 6, 8, 9, and 13 were objected due to a variety of Informalities. The claims have been amended to address these informalities.

Rejection of Claims Under 35 U.S.C. §103

Additionally, in the Office Action, claims 1-6 and 8-13 were rejected under 35 U.S.C. §103(a) as being obvious over the Background of Applicant's specification in view of U.S. Pat. No. 6,392,990 ("Tosey"). This rejection is traversed based on the following remarks.

8

Serial No. 09/932,553
Reply to Office Action of March 17, 2005

     Claim 1 is directed to a communication adapter system that includes in a server a primary I/O board and an secondary I/O board as well as a primary switch and a secondary switch that link the adapter system to a network. An executable program is provided on the server that generates a connectivity signal to the primary switch to test connectivity from the primary I/O board to the primary switch. When a response signal is not received from the primary switch in a predetermined time period, a primary NIC is configured to disable data transfer to the primary switch and a secondary NIC is configured to enable data transfer through the secondary switch. Tosey teaches a method that tests a different connectivity and hence, fails to teach each and every element of claim 1 even when combined with Applicant's Background teaching.

     As discussed in Applicant's Background, prior to Applicant's invention, prior adapter systems that addressed the problem of a single point of failure (SPOF) had redundancy but "could only test connectivity up to the NIC and could not query the switch or any other remote device on the network. Accordingly, the switch could fail and the HAnet system would not detect it, because it had no capability to go beyond the NIC layer." The adapter system of claim 1 is not shown by Applicant's Background teach because prior adapter systems were only configured to test connectivity up to the NIC.

     The Office Action cites Tosey for teaching in its Figures 2 and 4A generating a signal to a primary switch to test connectivity up to that switch. Applicant disagrees with this construction of Tosey's teaching. In Figure 4A, Tosey teaches its failure detection and recovery method. As can be seen, Tosey teaches transmitting a link test "to candidate network peers" and not to the hub 22. Claim 1 calls for the connectivity signal to be sent to the primary switch and a response signal to be monitored to determine connectivity from the primary I/O board to the primary switch.

Serial No. 09/932,553
Reply to Office Action of March 17, 2005

In contrast, Tosey teaches that "a network computing device must establish that it cannot communicate with any other device through the network interface card" (see, col. 5, lines 64-66) and does so by contacting the router 24 (see col. 6, lines 4-5) to see if the network computing device 21 can communicate with one of its peer devices (not shown in Figure 2). Steps 104 and 108 of Figure 4A is explained in more detail from col. 6, line 25 to col. 7, line 34. As can be seen from this description, Tosey is describing a technique of a first network computing device 21 looking for at least one other network computing device or peer connected to the router 24 that it can communicate with and by finding such a device or peer it is sufficient to determine that the network interface 25 of the device 21 has not failed. However, if a signal is not received, the network computing device 21 will not be able to determine if the failure is in the hub 22, in the link 29, in the router 24, or elsewhere in the networked system 28. The link test passes through the hub 22 but is not responded to by the hub 22 which merely passes a response from a peer device to the computing device 21.

In direct contrast, the adapter system of claim 1 calls for sending a connectivity signal to the primary switch and waiting for a response signal from that primary switch. In this manner, the adapter system of claim 1 is able to accurately identify a failure within the adapter system but out to the switch. Because the combination of Applicant's Background and Tosey fail to teach or suggest each element of claim 1, the rejection of claim 1 is improper and should be withdrawn.

Claims 2-6 depend from claim 1 and are believed allowable as depending from an allowable base claim.

Independent claim 8 is directed to a method claim with similar limitations (but in method form) as that of claim 1. Hence, the reasons for allowing claim 1 over the combined teachings of Applicant's Background and Tosey are believed applicable to claim 8. Claims 9-13 depend from claim 8 and are believed allowable as depending from an allowable base claim.

Serial No. 09/932,553
Reply to Office Action of March 17, 2005

Additionally, In the Office Action, claims 7 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's Background in view of Tosey and further in view of U.S. Pat. No. 6,243,838 ("Liu"). This rejection is traversed based on the following remarks.

Claims 7 and 14 depend from claims 1 and 8, respectfully, and are believed allowable as depending from an allowable base claim. Liu is cited for teaching the notification of a system administrator feature added by these claims (e.g., notification after determination of a loss of connectivity between a primary I/O board and a primary switch). However, Liu fails to overcome the deficiencies of Applicant's Background and Tosey, and hence, the combination of these 3 references fails to teach or suggest the system and method of base claims 1 and 8. Therefore, claims 7 and 14 are allowable for the reasons for allowing claim and 8.

Claim 15 is similar to claim 1 but calls for specific network information to be transferred to the secondary NIC, and the transfer of this type of information is not shown by the cited references.

Conclusions

In view of all of the above, the claims are now believed to be in condition for allowance, and it is requested that a timely Notice of Allowance be issued in this case.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

__June 6, 2005__

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Attachment: Replacement Sheets (2)

\\\DEN - 80168/0343 - 177426 v2

11